



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RB 92700-10300-041-1-PO

Job Sheet 185583



Part No: RB 92700-10300-041-1-PO **Job Qty:** 3 ea

Part Name: Seal Installation Tool



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/30/18

Job Tracking No:

Due Date: 12/14/18

Created By: Patrick Lussier

Type: Stock

Description:

Note: DWG RB 92700-10300-041 Rev.A IPP Rev. A 18.10.29 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	3 pcs	12/14/18	12/14/18	0.00	0.00	Purchasing		
110	Packaging	3 pcs	12/14/18	12/14/18	0.00	0.00	Packaging2		DAS
120	QC	3 pcs	12/14/18	12/14/18	0.00	0.00	QC6		61
130	Small Fab	3 pcs	12/14/18	12/14/18	0.00	0.30	Small Fab-2	N/R	9-89
140	QC	3 pcs	12/14/18	12/14/18	0.00	0.00	QC5	N/R	
150	Packaging	3 pcs	12/14/18	12/14/18	0.00	0.00	Packaging3		MCC
160	QC21-FG	3 Ea	12/14/18	12/14/18	0.00	0.00	QC21		DEC 27 2018 70

Part Op 100 - Issue P/O: 041341 MANUFACTURE RB 92700-10300-041-1 AS PER DWG Supplier: ARROW TECH 9-89
Descriptions: MACHINE WORKS -Certificate of conformity is required

130 - Re-identify as required.

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RB 92700-10300-041-1P	Seal Installation Tool	3 (1 ea)	100-Purchasing	5131940

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RB 92700-10300-041-1P	3	0	0

Part Specifications

Specifications could not be found.

Plex 10/30/18 2:37 PM dart.Lussier.Patrick



Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA

TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S139941



Seal Installation Tool

PART NO: RB 92700-10300-041-1

Serial No/Batch: S139941

Revision: PO

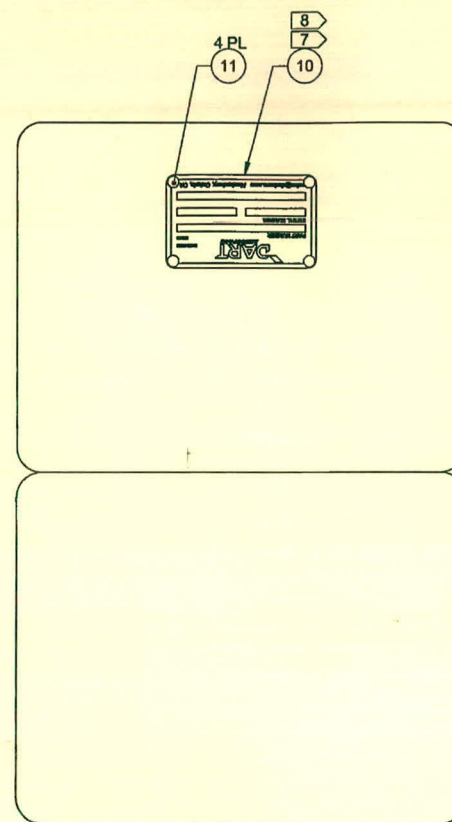
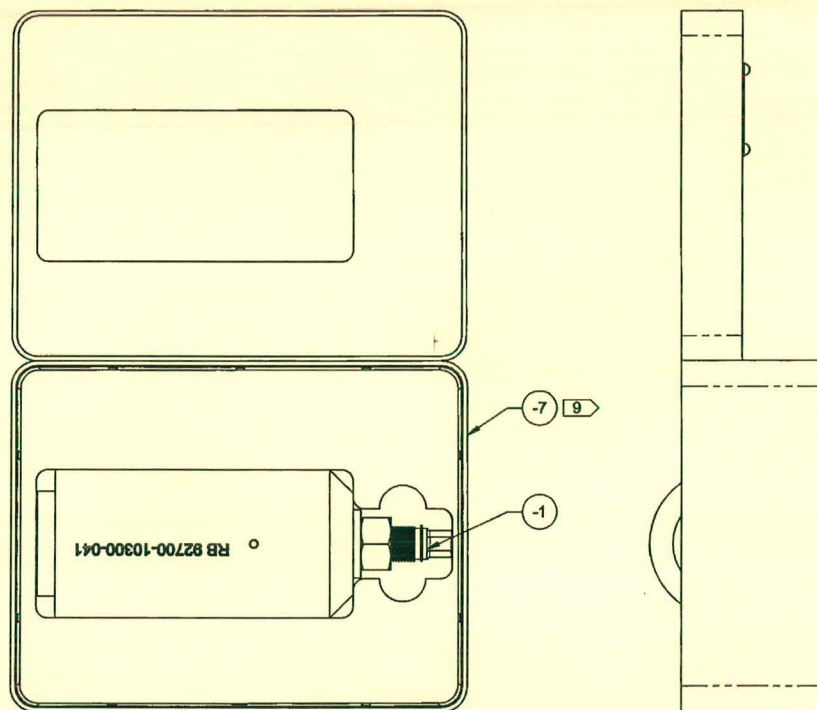
Operation: Packaging

Change No:

Mfg Date: 12/21/18

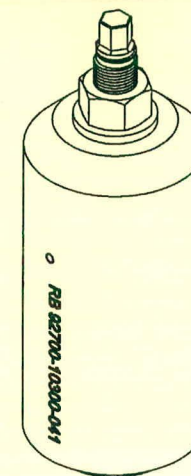
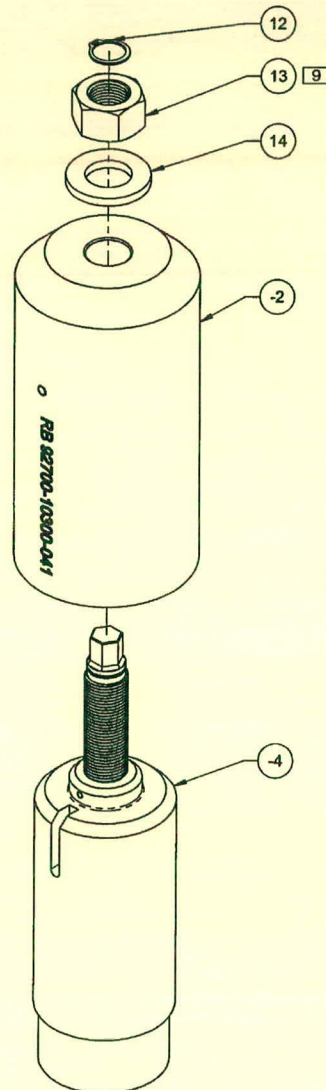
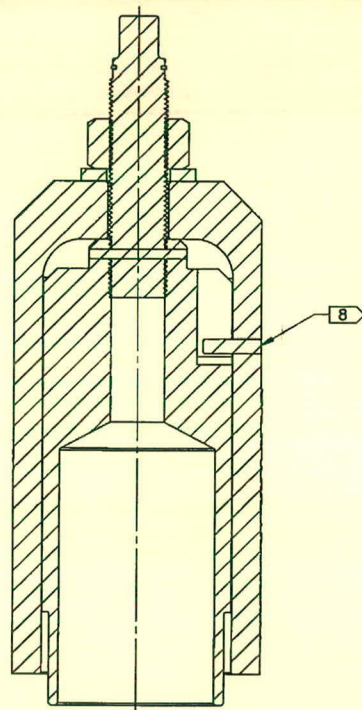
Job No: 185583

ITEM #	QTY	PART #	PART TITLE
-1	1	RB 92700-10300-041-1	SEAL INSTALLATION TOOL ASSY
-7	1	RB 92700-10300-041-7	PACKAGING ASSY
10	1	RB41011	DART PLACARD
11	4	McMaster#97524A032 OR EQUIV.	ALUMINUM SEALING BLIND RIVETS 1/8" DIA. x 0.425" LG.



A	NEW ISSUE	18-609	VM
REV.	DESCRIPTION	ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA TOOL PART # REV. A REV. A RE 92700-10300-041 SHEET 1 OF 10 SCALE NTS	
DRAWN	VM		
CHECKED	<i>MJL</i>		
MFG. APPR.	DP		
APPROVED	<i>MJL</i>		
DATE	5/30/2018	COPYRIGHT © 2018 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

ITEM #	QTY	PART #	PART TITLE
-2	1	RB 92700-10300-041-2	REACTOR ASSY
-4	1	RB 92700-10300-041-4	PULLER ASSY
12	1	McMaster#98410A126 OR EQUIV	EXTERNAL RETAINER RING
13	1	McMaster#94895A840 OR EQUIV	HEX NUT STEEL 3/4"-16 GRADE 8
14	1	McMaster#98023A036 OR EQUIV	FLAT WASHER STEEL FOR 3/4" SCREW



RB 92700-10300-041-1 SEAL INSTALLATION TOOL ASSY

NOTES:

- 1) MATERIAL: N/A
2) HEAT TREAT: N/A
3) FINISH: N/A

- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1"
X.XX = +/- 0.01" / +/- 0.5"
X.XXX = +/- 0.005" / +/- 0.1"
X.XXXX = +/- 0.0005" / +/- 0.05"

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

5) UNITS: INCHES UNLESS OTHERWISE NOTED

6) BREAK SHARP EDGES: N/A

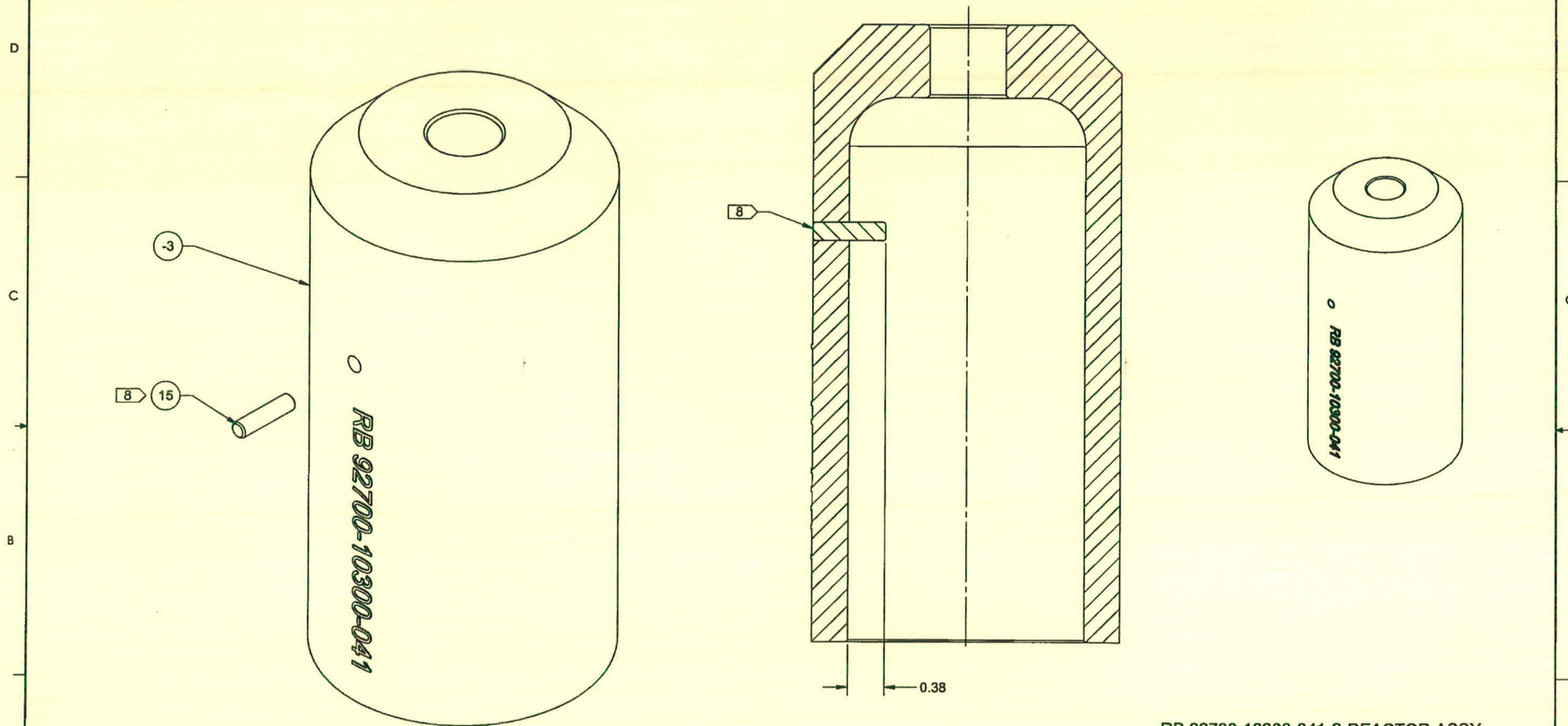
7) IDENTIFICATION: N/A

8) ASSEMBLE AS SHOWN, DOWEL PIN IN ITEM -2 MUST BE ALIGNED WITH THE SLOT OF ITEM -4 AS SHOWN

9) INSTALL ITEM 13 HAND TIGHT

DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	<i>MEL</i>	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10300-041	SHEET 2 OF 10
APPROVED	<i>MEL</i>	TITLE	SCALE
		SEAL INSTALLATION TOOL	NTS
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ITEM #	QTY	PART #	PART TITLE
-3	1	RB 92700-10300-041-3	REACTOR
15	1	McMaster#98381A316 OR EQUIV	DOWEL PIN STEEL 3/16" DIA. x 3/4" LG.



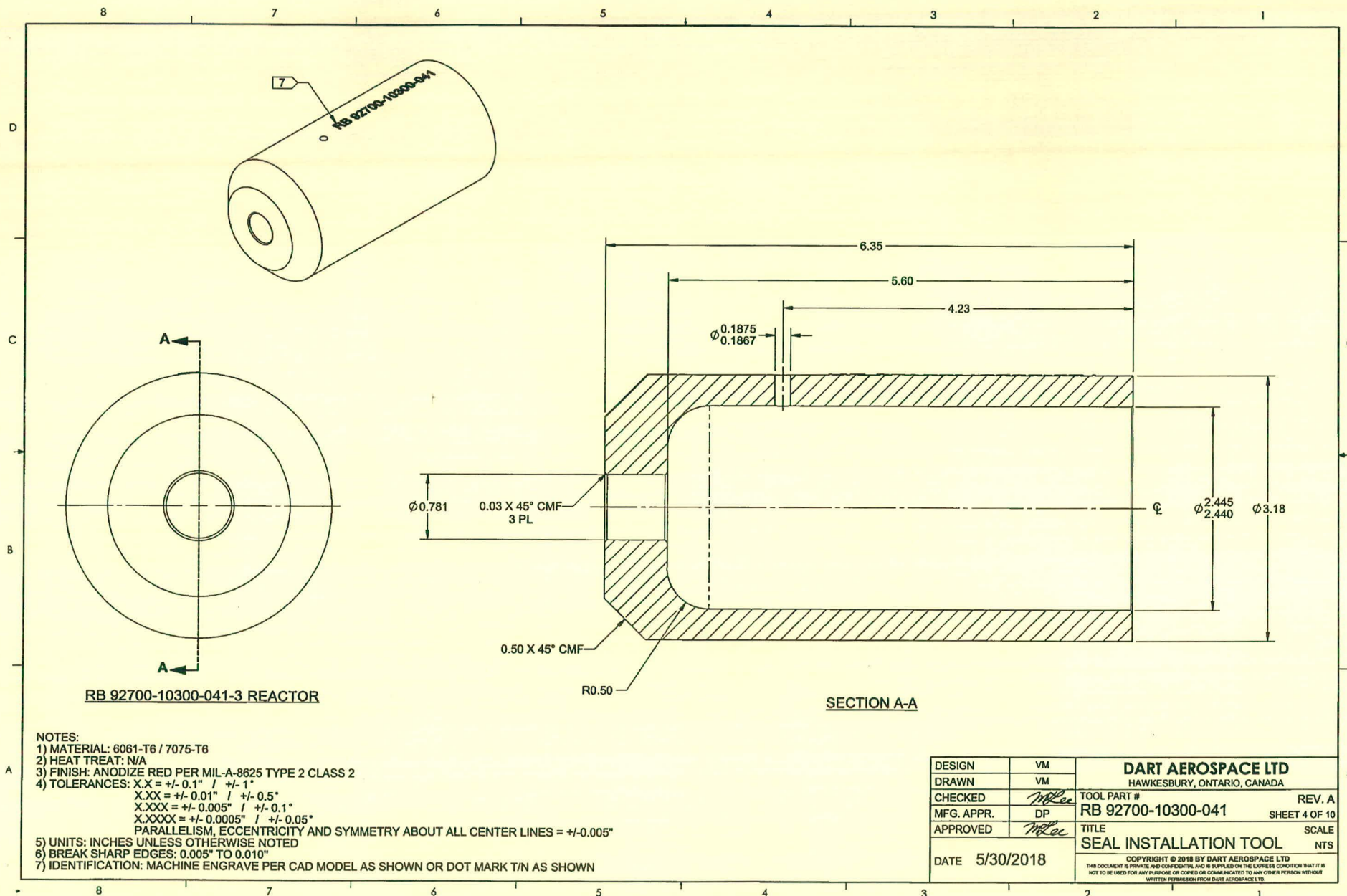
NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1"$
X.XX = $\pm 0.01"$ / $\pm 0.5"$
X.XXX = $\pm 0.005"$ / $\pm 0.1"$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05"$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$

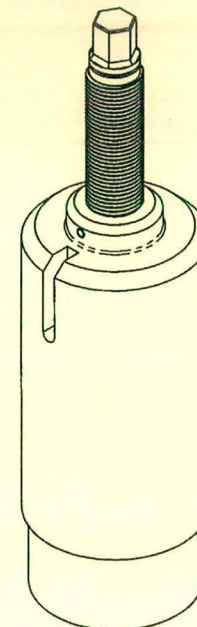
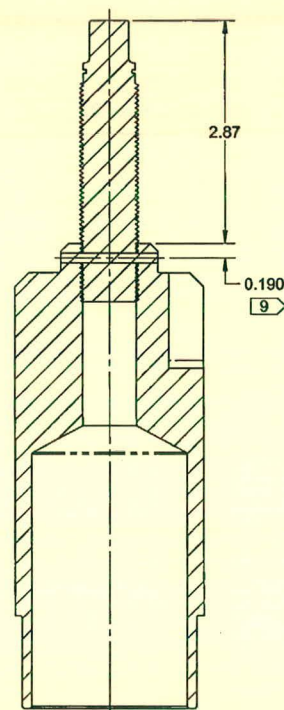
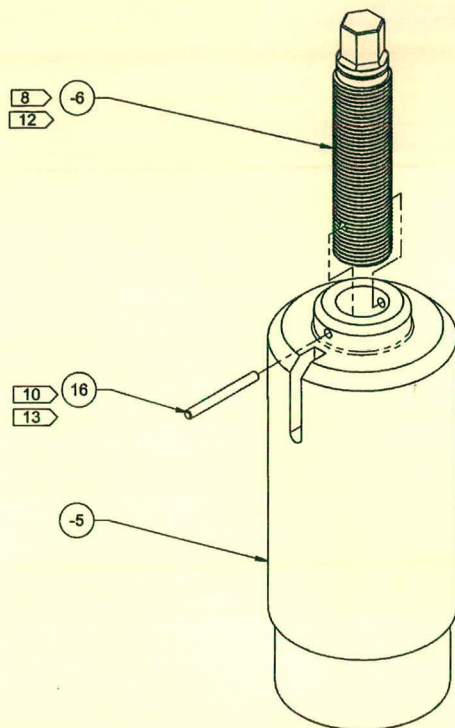
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: N/A
- 7) IDENTIFICATION: N/A
- 8) APPLY LOCTITE 620 OR EQUIVALENT ON MATING SURFACES THEN PRESS FIT ITEM 15 FLUSH TO THE OUTSIDE OF ITEM -3 AS SHOWN AND REMOVE EXCESS

RB 92700-10300-041-2 REACTOR ASSY

DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	<i>M. Lee</i>	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10300-041	SHEET 3 OF 10
APPROVED	<i>M. Lee</i>	TITLE	SCALE
		SEAL INSTALLATION TOOL	NTS
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ITEM #	QTY	PART #	PART TITLE
-5	1	RB 92700-10300-041-5	PULLER
-6	1	RB 92700-10300-041-6	SCREW
16	1	McMaster#98380A477 OR EQUIV	SS DOWEL PIN 1/8" DIA. x 1-1/4" LG.

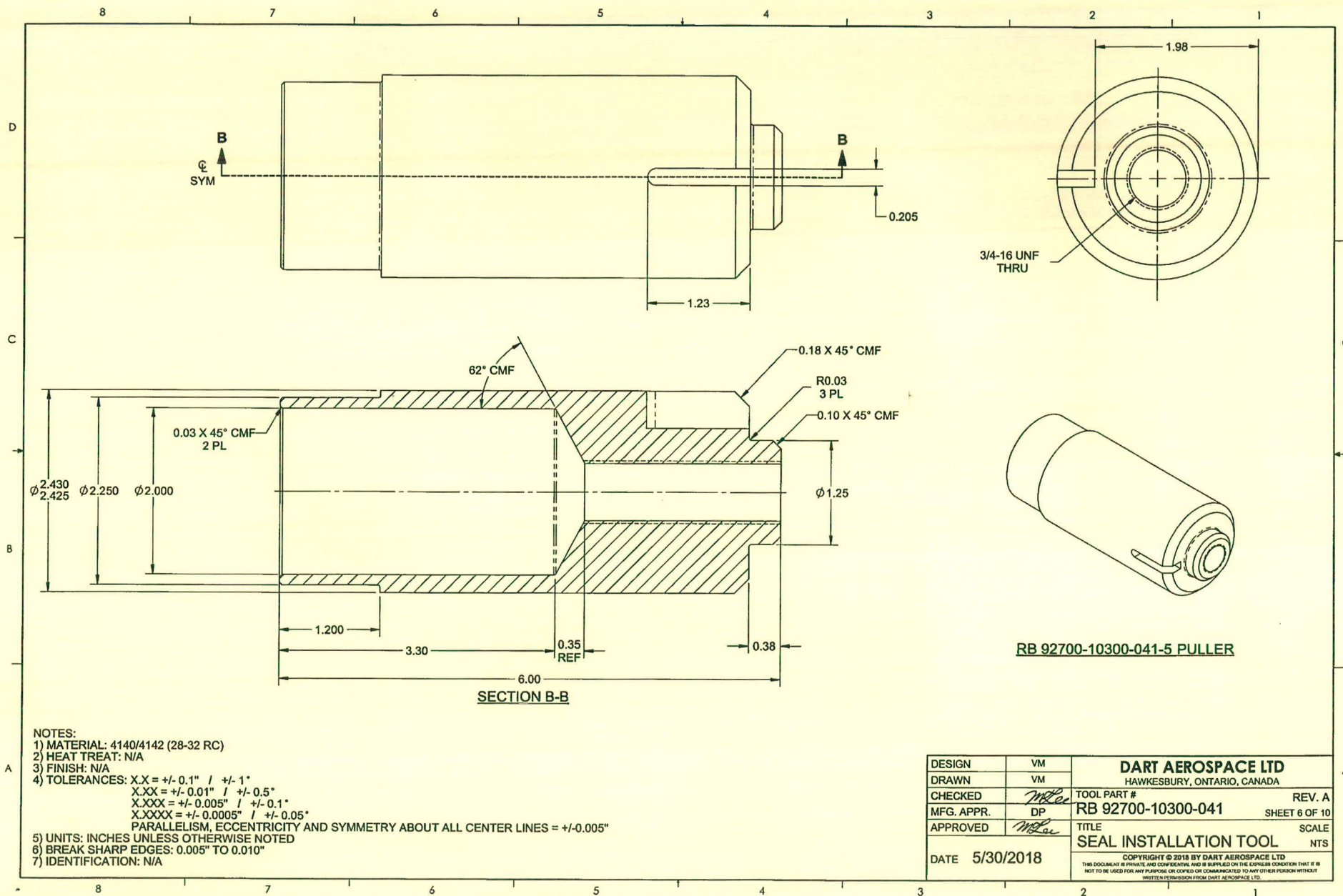


RB 92700-10300-041-4 PULLER ASSY

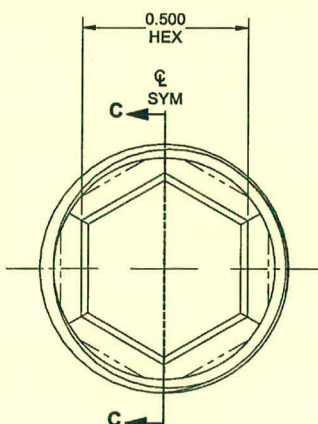
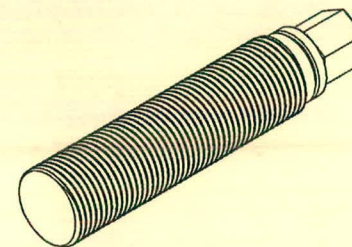
NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1"
X.XX = +/- 0.01" / +/- 0.5"
X.XXX = +/- 0.005" / +/- 0.1"
X.XXXX = +/- 0.0005" / +/- 0.05"
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005" TO 0.010"
- 7) IDENTIFICATION: N/A
- 8) INSTALL ITEM -6 AS SHOWN
- 9) DRILL $\phi 0.1250/0.1242$ HOLE THRU ALL
- 10) REMOVE ITEM -6 FROM ITEM -5 AND DEBURR HOLES
- 11) FINISH MUST BE APPLIED WHEN COMPONENTS ARE UNASSEMBLED
- 12) APPLY LOCTITE 262/263 TO MATING THREADS OF ITEM -6 THEN REINSTALL ITEM -6 INTO ITEM -5 UNTIL DOWEL PIN HOLE IS ALIGNED
- 13) APPLY LOCTITE 620 ONTO MATING SURFACES OF ITEM 16 AND ITEM -5 THEN PRESS FIT ITEM 16 INTO HOLE, UNTIL FLUSH WITH SURFACE

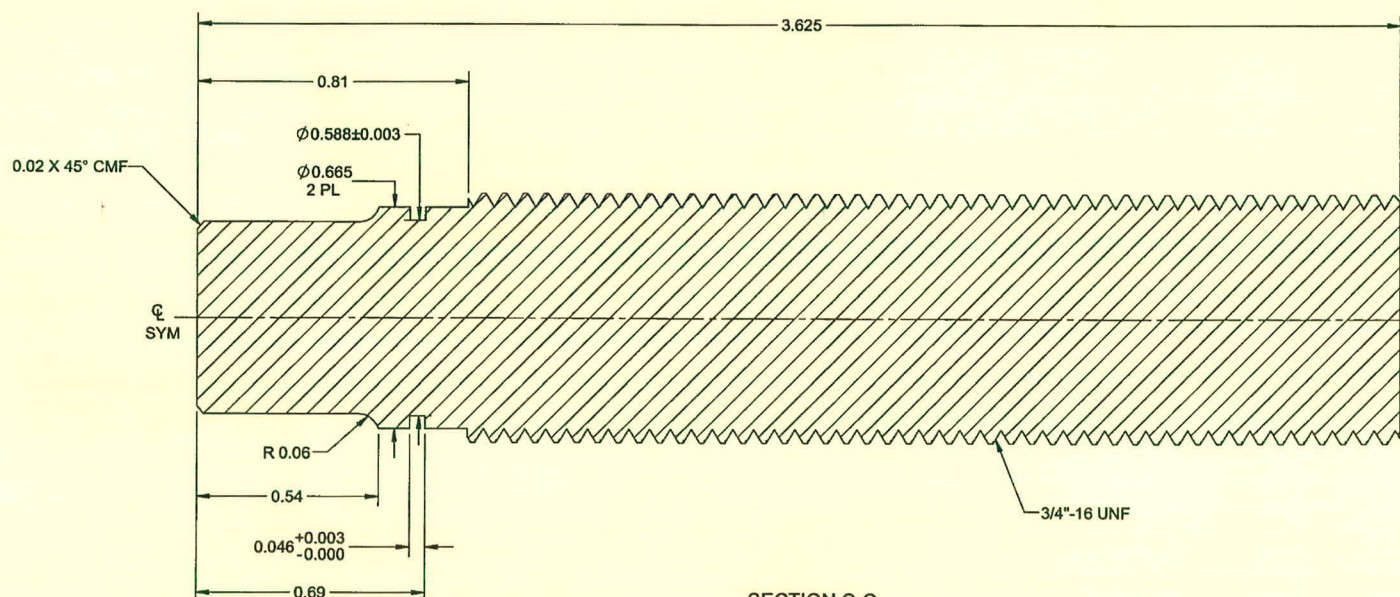
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	MR	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10300-041	SHEET 5 OF 10
APPROVED	MR	TITLE	SCALE
		SEAL INSTALLATION TOOL	NTS
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DESIGN	VM	DART AEROSPACE LTD	
DRAWN	VM	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MS	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10300-041	SHEET 6 OF 10
APPROVED	MS	TITLE	SCALE
DATE 5/30/2018		SEAL INSTALLATION TOOL	NTS
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RB 92700-10300-041-6 SCREW



SECTION C-C

NOTES:

1) MATERIAL: 4140/4142 (28-32 RC)

2) HEAT TREAT: N/A

3) FINISH: N/A

4) TOLERANCES: X.X = +/- 0.1" / +/- 1°

X.XX = +/- 0.01" / +/- 0.5°

X.XXX = +/- 0.005" / +/- 0.1°

X.XXXX = +/- 0.0005" / +/- 0.05°

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"

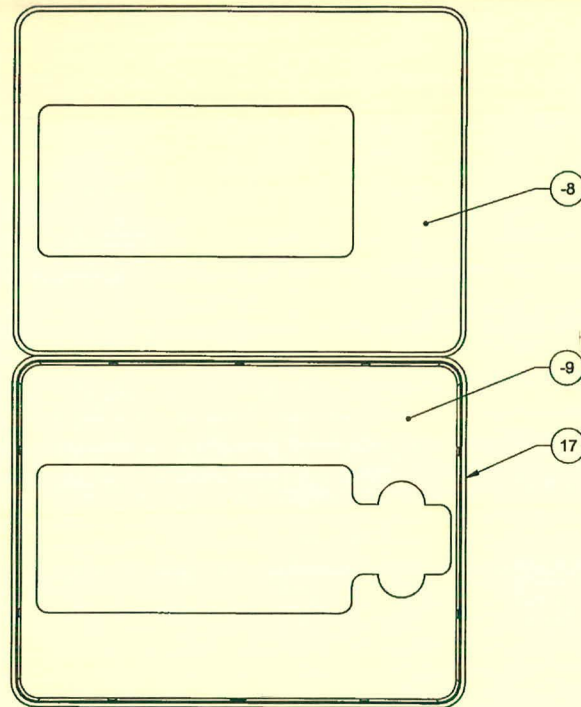
5) UNITS: INCHES UNLESS OTHERWISE NOTED

6) BREAK SHARP EDGES: 0.005" TO 0.010"

7) IDENTIFICATION: N/A

DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	MR	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10300-041	SHEET 7 OF 10
APPROVED	MR	TITLE	SCALE
		SEAL INSTALLATION TOOL	NTS
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ITEM #	QTY	PART #	PART TITLE
-8	1	RB 92700-10300-041-8	TOP FOAM
-9	1	RB 92700-10300-041-9	BOTTOM FOAM
17	1	PELICAN #APP-1200-E	PELICAN CASE 1200



RB 92700-10300-041-7 PACKAGING ASSY

NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A

- 4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1"$
X.XX = $\pm 0.01"$ / $\pm 0.5"$
X.XXX = $\pm 0.005"$ / $\pm 0.1"$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05"$

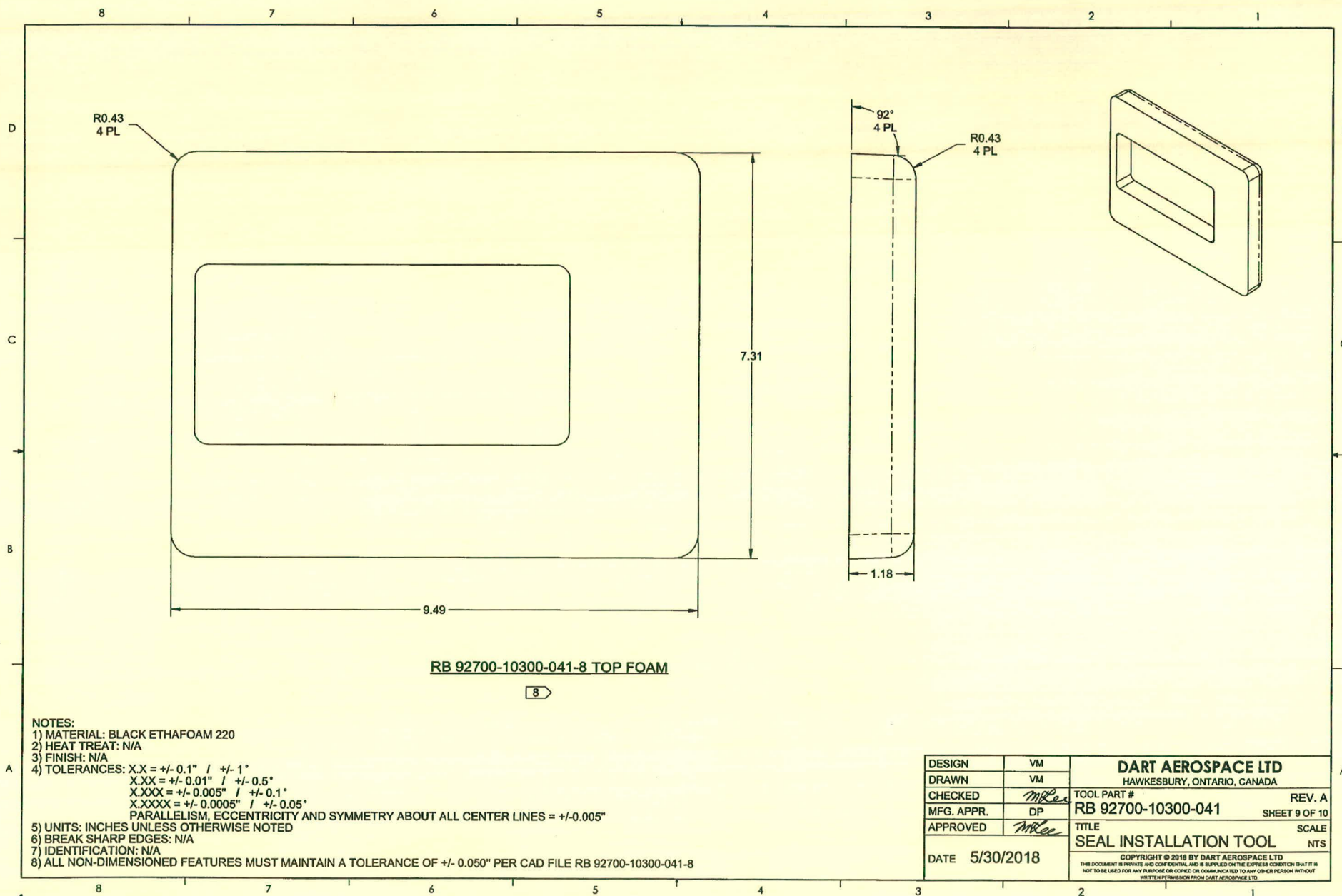
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$

- 5) UNITS: INCHES UNLESS OTHERWISE NOTED

- 6) BREAK SHARP EDGES: N/A

- 7) IDENTIFICATION: N/A

DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	<i>MRe</i>	TOOL PART #	REV. A
MFG. APPR.	DP	RB 92700-10300-041	SHEET 8 OF 10
APPROVED	<i>MRe</i>	TITLE	SCALE
		SEAL INSTALLATION TOOL	NTS
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041341**

Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

PO No: PO041341
PO Date: 10/12/18
Due Date: 12/21/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Belanger, NatashaPhone:

Ship To:

Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items													
Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	185571	RB 92700-10333-041-4P			Engine Drive Shaft Removal Tool Assy REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$1,450.00/Ea	\$4,350.00
Line Item Note SIOP													
2	185583	RB 92700-10300-041-1P			Seal Installation Tool REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$1,099.67/Ea	\$3,294.00
Line Item Note SIOP													
3	185584	RB 92700-10328-041P			Sight Gage Removal Tool REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$627.00/Ea	\$1,881.00
Line Item Note SIOP													
4	185585	RB 92700-10308-041-4P			Input Module Seal Installer Assembly REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$1,856.00/Ea	\$5,568.00
Line Item Note SIOP													
5	185613	RB 92700-10750-101P			Torque Adapter REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$233.00/Ea	\$699.00
Line Item Note SIOP													
6	185614	RB 92700-10750-102P			Input Module Wrench REV A	Firmed	-	12/21/18	3 Ea	0 Ea	3 Ea	\$145.00/Ea	\$435.00
Line Item Note SIOP													

Plex 12/20/18 10:08 AM dart.Lussier.Patrick

18
080



**PHGE Machineworks dba
Arrowtech Machineworks**
29751 E Enid Rd. Unit C
Eugene, Oregon 97402
Phone: (541) 780-6938
Fax: (458) 215-4938

Packing Slip

NO. 356

PAGE 1 OF 2

Date: 12/14/2018
PO Ref: 041341
Ship via: Fedex Priority

Bill To:
Dart Aerospace
1270 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K7

Ship To:
Dart Aerospace
1271 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K8

Qty	Item	Part No.
3	SEAL INSTALLATION TOOL	RB 92700-10300-041-1
3	PLATE ASSEMBLY	RB 92700-10303-041-4
3	WRENCH ASSEMBLY	RB 92700-10303-041-6
3	TGB & IGB SEAL INSTALLER ASSEMBLY	RB 92700-10305-041-4
2	TR NUT WRENCH	RB 92700-10307-041
3	TAIL BLADE WRENCH (DE-ICE) WELDMENT	RB 92700-10309-042
3	TORQUE REACTOR	RB 92700-10314-101
3	SIGHT GUAGE REMOVAL TOOL	RB 92700-10328-041
3	ENGINE DRIVE SHAFT REMOVAL TOOL ASS	RB 92700-10333-041-4
3	BEARING SPANNER WRENCH	RB 92700-10340-101
3	SEAL REMOVAL ASSEMBLY	RB 92700-10350-041-5
3	BEARING ALIGHNMENT TOOL	RB 92700-10356-041
3	TORQUE ADAPTER	RB 92700-10750-101
3	INPUT MODULE WRENCH	RB 92700-10750-102
6	RIG PLATE SCREW	RB 92700-10400-041-6
3	PIT STOP GUAGE	RB 92700-10400-041-7
15	RIG GUAGE PLATE (SPARES)	RB 92700-10400-041-9

DAS
61
9-89

Received by: _____
Packaged by: W
Checked by: C.B.

Thank You

...

DA
12
BR



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No:041341 ✓ Dated: 12/14/2018

Our Order / Job No:041341-2AWT Order Qty:3 ✓

Part Name:SEAL INSTALLATION TOOL

Part Number:RB 92700-10300-041-1 ✓

DAS
61
9-89

Lot Size:N/A Ship Date: 12/14/2018

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number:RB 92700-10300-041-1 Rev:A

Material Size and Type:-3/6061-T6 ALUM.;-5,-6/4140 Q & T

Material Specifications: ALUM.: ASTM B221; STEEL: ASTM A108, ASTM A29

Heat Treatment: N/A

Plating/Finish:RED ANODIZE: MIL-A-8625F, TYPE 2, CLASS 2; BLACK OXIDE: QMSI-6.2.2
B.O. REV-D

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 12/21/18

Signed: Hemant M. Patel

PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com

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